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c.) Amendments to the Claims

Please amend claims 1-7, 10, 12-19, 21, 23, 26, 27, 33 and 34 as follows:

1. (amended) A method for the ~~rapid~~ typing or enumeration of ~~microorganisms~~ bacteria comprising:

immobilizing a capture antibody specific to one or more types of bacteria on a solid support;

contacting a said immobilized capture antibody with a sample containing said one or more types of bacteria;

contacting the contents of said sample with a predetermined amount of substrate for the one or more types of bacteria, wherein metabolism of said substrate by the ~~microorganisms~~ one or more types of bacteria produces a marker;

digesting the ~~microorganisms~~ one or more types of bacteria to release said marker;

adding a primary antibody specific to said marker to the digested bacteria;

adding a second antibody specific for said primary antibody, and conjugated to a reporter molecule to the digested bacteria;

detecting the reporter molecule conjugated to the second antibody; and

determining the type or quantity of ~~microorganism~~ the one or more types of bacteria present in the sample from reporter molecule detected.

2. (amended) The method of claim 1, wherein the digestion of said ~~microorganisms~~ one or more types of bacteria comprises cell lysis.

3. (amended) The method of claim 1, which is capable of detecting 1000 colony forming units per ml or less of said ~~microorganism~~ one or more types of bacteria.

4. (amended) The method of claim 1, which is capable of detecting 100 colony forming units per ml or less of said ~~microorganism~~ one or more types of bacteria.

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5. (amended) The method of claim 1, wherein the sensitivity of said method is capable of detecting 10 colony forming units per ml or less of said ~~microorganism~~ one or more types of bacteria.

6. (amended) The method of claim 1, wherein the type or enumeration of ~~microorganisms~~ said one or more types of bacteria is determined in less than two hours.

7. (amended) The method of claim 1, wherein the type or enumeration of ~~microorganisms~~ said one or more types of bacteria is determined in less than one hour.

8. (original) The method of claim 1, wherein the reporter molecule is selected from the group consisting of: a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

9. (original) The method of claim 1, wherein the substrate is dimethylthiazolyldiphenyl tetrazolium, iodonitrotetrazolium, nitrotetrazolium blue, or triphenyltetrazolium.

10. (amended) The method of claim 1, wherein the ~~microorganism~~ one or more types of bacteria comprises one or more species of bacteria.

11. (original) The method of claim 1, wherein the sample is selected from the group consisting of a bodily fluid, a blood sample, a clinical sample, a cosmetic sample, an environmental sample, a food sample, an industrial sample, pharmaceutical sample, a tissue sample, a tissue homogenate, and combinations thereof.

12. (amended) The method of claim 1, wherein the ~~microorganisms~~ one or more types of bacteria are digested prior to their contact with said capture antibody.

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13. (amended) A method for the ~~rapid~~ typing or enumeration of ~~microorganisms~~ bacteria in a sample comprising:

~~immobilizing a capture antibody on a solid support;~~

~~contacting a said immobilized capture antibody with a sample;~~

contacting the contents of said sample with a predetermined amount of a substrate for one or more types of bacteria suspected of being contained within said sample, wherein metabolism of said substrate by the ~~microorganisms~~ one or more types of bacteria produces a marker;

digesting the ~~microorganisms~~ one or more types of bacteria to release said marker;

adding a primary antibody specific to said marker to the digested bacteria;

detecting said primary antibody bound to said marker; and

determining the type ~~number of microorganisms~~ or quantity of said one or more types of bacteria present in said sample from the bound primary antibody detected.

14. (amended) The method of claim 13, wherein the digestion of said ~~microorganisms~~ one or more types of bacteria comprises cell lysis.

15. (amended) The method of claim 13, which is capable of detecting 1000 colony forming units or less of said ~~microorganism~~ one or more types of bacteria.

16. (amended) The method of claim 13, which is capable of detecting 100 colony forming units or less of said ~~microorganism~~ one or more types of bacteria.

17. (amended) The method of claim 13, wherein the sensitivity of said method is capable of detecting 10 colony forming units or less of said ~~microorganism~~ one or more types of bacteria.

18. (amended) The method of claim 13, wherein the type or enumeration of ~~microorganisms~~ said one or more type of bacteria is determined in less than two hours.

19. (amended) The method of claim 13, wherein the type or enumeration of ~~microorganisms~~

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said one or more types of bacteria is determined in less than one hour.

20. (original) The method of claim 13, wherein the substrate is dimethylthiazolyldiphenyl tetrazolium, iodonitrotetrazolium, nitrotetrazolium blue, or triphenyltetrazolium.

21. (amended) The method of claim 13, wherein the ~~microorganism is~~ one or more types of bacteria comprises one or more species of bacteria.

22. (original) The method of claim 13, wherein the sample is selected from the group consisting of a bodily fluid, a blood sample, a clinical sample, a cosmetic sample, an environmental sample, a food sample, an industrial sample, pharmaceutical sample, a tissue sample, a tissue homogenate, and combinations thereof.

23. (amended) The method of claim ~~13~~ 36, wherein the ~~microorganisms~~ one or more types of bacteria are digested prior to contact with the capture antibody.

24. (original) The method of claim 13, wherein the primary antibody is conjugated to a reporter molecule.

25. (original) The method of claim 24, wherein the reporter molecule is selected from the group consisting of: a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

26. (amended) A kit for the ~~rapid~~ detection or enumeration of ~~microscopic organisms~~ one or more types of bacteria comprising:

~~a solid support;~~

~~capture antibodies affixed to said solid support;~~

a soluble substrate, which upon uptake by one or more types of actively respiring

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~~organisms~~ bacteria, is metabolized to a water-insoluble molecule;

a primary antibody specific for said water-insoluble molecule; and

~~a second antibody specific for said primary antibody and conjugated to~~ a detectable reporter molecule.

27. (amended) The kit of claim 26, ~~wherein the~~ further comprising a solid support ~~is~~ supplied with ~~said~~ capture antibodies that are specific to said one or more types of bacteria and immobilized ~~thereto~~ to said solid support.

28. (original) The kit of claim 26, further comprising a wash buffer, a dilution buffer, and a digestion reagent.

29. (original) The kit of claim 26, wherein the detectable reporter molecule is selected from the group consisting of a bioluminescent protein, a chemiluminescent dye, a fluorescent dye, an enzyme, a latex particle, a magnetic particle, a radioisotope, a visible dye, and combinations thereof.

30. (original) The kit of claim 26, wherein said detectable reporter molecule comprises an enzyme.

31. (original) The kit of claim 26, further comprising a nutrient media.

32. (original) The kit of claim 31 wherein the nutrient media comprises a reducing sugar and a mild oxidizing agent

33. (amended) The kit of claim 32 wherein the mild oxidizing agent is ~~NAD+~~ nicotinamide adenine dinucleotide and the reducing sugar is glucose.

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34. (amended) A kit for the ~~rapid~~ detection or enumeration of ~~microscopic organisms~~ bacteria comprising:

a solid support;

capture antibodies that are specific to one or more types of bacteria and affixed to said solid support;

a soluble substrate to said one or more types of bacteria, which upon uptake by actively respiring ~~organisms~~ said one or more types of bacteria, is metabolized to a water-insoluble molecule; and

a primary antibody specific for said water-insoluble molecule.

35. (original) The kit of claim 34, wherein the primary antibody is conjugated to a reporter molecule.

Please add the following as new claims 36 to 44:

–36. (new) The method of claim 13, further comprising immobilizing a capture antibody specific to said one or more bacteria on a solid support and contacting a said immobilized capture antibody with said sample.

37. (new) The method of claim 13, further comprising contacting the primary antibody bound to marker with a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with a detectable reporter molecule.

38. (new) The method of claim 1, which determines the type or quantity of one type of bacteria.

39. (new) The method of claim 13, which determines the type or quantity of one type of bacteria.

40. (new) The kit of claim 26, wherein the detectable reporter molecule is conjugated to said primary antibody.

41. (new) The kit of claim 26, further comprising contacting the primary antibody bound to marker with a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with said detectable reporter molecule.

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42. (new) The kit of claim 34, further comprising contacting the primary antibody bound to water-insoluble molecule with a secondary antibody, wherein said secondary antibody is specific for said primary antibody and conjugated with said detectable reporter molecule.

43. (new) The kit of claim 26, which determines the type or quantity of one type of bacteria.

44. (new) The kit of claim 34, which determines the type or quantity of one type of bacteria.-